

**This Page Is Inserted by IFW Operations
and is not a part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- **BLACK BORDERS**
- **TEXT CUT OFF AT TOP, BOTTOM OR SIDES**
- **FADED TEXT**
- **ILLEGIBLE TEXT**
- **SKEWED/SLANTED IMAGES**
- **COLORED PHOTOS**
- **BLACK OR VERY BLACK AND WHITE DARK PHOTOS**
- **GRAY SCALE DOCUMENTS**

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

**NEW UTILITY PATENT APPLICATION
TRANSMITTAL***(Only for new nonprovisional applications under 37 C.F.R. 1.53(b))*Docket No.
M4065.0196/P196Total pages in this
submission**TO THE ASSISTANT COMMISSIONER FOR PATENTS****Box Patent Application
Washington, D.C. 20231**

Transmitted herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

ENHANCED BARRIER FORMATION FOR TUNGSTEN VIA APPLICATIONS

and invented by:

Shane Leiphart

If a **CONTINUATION APPLICATION**, check appropriate box and supply requisite information:

☐ Continuation ☐ Divisional☐ Continuation-in-part (CIP) of prior application No.: _____

Enclosed are:

Application Elements

1. ☒ Filing fee as calculated and transmitted as described below
2. ☒ Specification having 22 pages(s) and including the following:
 - a. ☒ Descriptive title of the invention
 - b. ☐ Cross references to related applications (*if applicable*)
 - c. ☐ Statement regarding Federally-sponsored research/development (*if applicable*)
 - d. ☐ Reference to microfiche appendix (*if applicable*)
 - e. ☒ Background of the invention
 - f. ☐ Brief summary of the invention
 - g. ☒ Brief description of the drawings (*if drawings filed*)
 - h. ☒ Detailed description
 - i. ☒ Claims as classified below
 - j. ☒ Abstract of the disclosure

Application Elements (continued)

3. ☒ Drawing(s) (when necessary as prescribed by 35 U.S.C. 113)
☐ Formal ☒ Informal Number of sheets: 5
4. ☒ Oath or Declaration
a. ☒ Newly executed (original or copy) ☐ Unexecuted
b. ☐ Copy from a prior application (37 C.F.R. 1.63(d) (for continuation/divisional applications only)
c. ☐ With Power of Attorney ☐ Without Power of Attorney
5. ☐ Incorporation by reference (usable if Box 4b is checked)
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
6. ☐ Computer program in microfiche
7. ☐ Genetic sequence submission (if applicable, all must be included)
a. ☐ Paper copy
b. ☐ Computer readable copy
c. ☐ Statement verifying identical paper and computer readable copies

Accompanying Application

8. ☒ Assignment papers (cover sheet & document(s))
9. ☒ 37 C.F.R. 3.73(b) statement (when there is an assignee)
10. ☐ English translation document (if applicable)
11. ☒ Information Disclosure Statement/PTO-1449 ☒ Copies of IDS citations
12. ☐ Preliminary Amendment
13. ☒ Acknowledgment postcard
14. ☐ Certified copy of priority document(s) (if foreign priority is claimed)
15. ☐ Certificate of Mailing
☐ First Class ☐ Express Mail (Label No.: _____)
16. ☐ Small Entity statement(s) -- # submitted _____ (if Small Entity status claimed)

Accompanying Application (continued)

- 17.
- ☐
- Additional enclosures (please identify below):

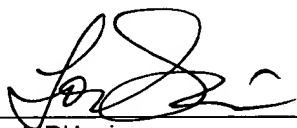
Fee Calculation and Transmittal

The filing fee for this utility patent application is calculated and transmitted as follows:

☒ Large Entity ☐ Small Entity

<u>CLAIMS AS FILED</u>					
For	# Filed	# Allowed	# Extra	Rate	Fee
Total Claims	40	- 20 =	20	x \$18.00	\$360.00
Independent Claims	16	- 3 =	13	x \$78.00	\$1,014.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					
Other Fees (specify purpose): Assignment Recording Fee					\$40.00
BASIC FEE					\$760.00
TOTAL FILING FEE					\$2,174.00

- ☒ A check in the amount of \$2,174.00 to cover the total filing fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge and Deposit Account No. 04-1073 as described below. A duplicate copy of this sheet is enclosed.
- ☐ Charge the amount of _____ as filing fee.
- ☒ Credit any overpayment.
- ☒ Charge any additional filing fees required under 37 C.F.R. 1.16 and 1.17.
- ☐ Charge the issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance, pursuant to 37 C.F.R. 1.31(b).


Dated: August 11, 1999

Thomas J. D'Amico
 Attorney Reg. No.: 28,371
 Dickstein Shapiro Morin & Oshinsky LLP
 2101 L Street NW
 Washington, DC 20037-1526
 (202) 785-9700

M4065.0196/P196

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Shane P. Leiphart

Serial No.: Not Yet Assigned

Group Art Unit: Not Yet Assigned

Filed: Concurrently Herewith

Examiner: Not Yet Assigned

For: ENHANCED BARRIER
FORMATION FOR TUNGSTEN
VIA APPLICATIONS

Assistant Commissioner for Patents
Washington, D.C. 20231

TRANSMITTAL LETTER

Sir:

Enclosed are the following items for filing in connection with the above-referenced Patent Application:

1. Application For United States Letters Patent;
2. Specification (22 pages);
3. New Utility Patent Application Transmittal;
4. Informal Drawings (5 sheets);
5. Declaration;
6. Assignment and Agreement with Assignment Recordation Sheet;
7. Power of Attorney by Assignee and Certificate by Assignee Under 37 CFR § 3.73(b);
8. Information Disclosure Statement, PTO Form 1449 and cited references;
9. Postcard and
10. Check in the amount of \$2,174.00.

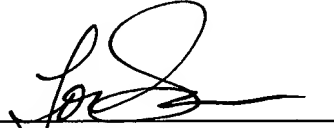
Our check in the amount of \$2,174.00 is enclosed covering any required fees. In the event that any variance exists between the amount enclosed and the Patent and Trademark

Office charges, please charge or credit the difference to our Deposit Account No. 04-1073. A duplicate copy of this letter is enclosed for that purpose.

Dated: August 11, 1999

Respectfully submitted,

By



Thomas J. D'Amico

Registration No.: 28,371

DICKSTEIN SHAPIRO MORIN

& OSHINSKY LLP

2101 L Street NW

Washington, DC 20037-1526

(202) 785-9700

Attorneys for Applicant

PATENT
Docket No.: M4065.0196/P196
Micron Docket No.: 98-0502

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
APPLICATION FOR U.S. LETTERS PATENT

Title:

ENHANCED BARRIER FORMATION FOR TUNGSTEN VIA APPLICATIONS

Inventor:
Shane P. Leiphart

Dickstein, Shapiro, Morin &
Oshinsky LLP
Suite 400
2101 L Street, N.W.
Washington, D.C. 20037
(202) 785-9700